1: Bowen-Jones et al. K-5 (1955-1958) 1961
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exception of 1942, there has been no recorded instance of a birth rate as low as 26.5, which was the figure for 1958. 163

In the late nineteenth century, Maltese birth rates were comparable with those of southern Europe, but subsequent decline has been much delayed in Malta. Economic progress in the Islands during the late nineteenth and early twentieth centuries was accompanied by a rising rather than by a falling birth rate. The pattern of natality in Malta since 1911, however, conforms to trends experienced elsewhere in Europe, although the rates themselves have not been the same. The decline in the Maltese birth rate during the 1914-18 War was less marked than on the European mainland and there was an actual increase in Malta between 1919 and 1939, when other European rates declined. The post-war upsurge in births reached its peak early in Malta and while the birth rates of most European countries have been stable at a medium level over the last few years, that of Malta has been falling from the most recent peak. 163 171

DEATHS

The decline in mortality during the past few years has been even greater than that in births. Before the Second World War, the Maltese death rate had fallen below 20 on but three occasions and in 11 separate years it had exceeded 30. Since 1953 it has stayed consistently below 10, thus becoming directly comparable with the death rates of the most advanced Western European countries. 165 [171]

In the nineteenth century, the Maltese death rate was subject to violent annual fluctuations. The worst years were those of epidemic cholera, but even in the latter part of the century, when this was less common, the rate remained high. The main factors responsible were poverty, disease and unsanitary living conditions which were particularly reflected in high infant mortality. Improvements in drainage, sewerage and water supply were effective in reducing mortality from nearly 27/1,000 in the 1890's to 21 in the 1930's but much greater reductions were achieved once the problem of infant mortality was attacked. As recently as the 1920's, this was still as high as 250 per 1,000 live births and only in 1936 did it fall below 200. The decline in this rate was further delayed by the Second World War but by 1944 it had fallen to 114. Since then, progress has been rapid, and infant mortality in 1958 stood at 40 per 1,000 live births, a level comparable with those of many European countries.

Thus, in Malta, as in other European countries, the death rate has been reduced largely as a result of declining infant mortality and the reduction although late has been extremely rapid. A further decline is both possible and, on humanitarian grounds, desirable.

NATURAL INCREASE

Statistics of births, deaths, marriages and natural increase are illustrated in Figs. 54 and 55. In the years since 1948, the natural increase has reached its highest level because of a remarkable decline in the death rate. The absolute natural increase in the decade 1831-40 was 5,241 whereas in 1941-50, despite the low birth rate of the war years, the excess of births over deaths was 52,833. The current natural increase runs at about 5,000 a year, ten times that of a century ago. 161

The annual rate of natural increase in 1831-40 was less than 5 per 1,000; by the end of the century it had reached 10 and in 1941-50 it was 18, since when it has maintained the present rate of 19. The general upward trend has not been an even one as the graph shows, there being peaks in 1851-60, 1881-90, 1901-10 and 1941-50, of which the first and last were the highest. The former was a period of high birth rates, a moderate death rate and very early marriage; the latter was one of rapidly falling death rates and a post-war upsurge in births. The troughs in the curve were lowest in the early and mid-nineteenth centuries, corresponding to times of frequent sickness and epidemic, of which the late 1860's and early 1870's provide examples.

Annual fluctuations in natural increase reflect specific historical events. On six occasions, the number of deaths in a year has exceeded the number of births. In 1837, '47, '50 and '55, epidemic cholera was the cause. In 1874, a

[Text Continues on P. 155]

3: Buxton D-5 (1920-1921) 1922 EZ6 Malta EZ6

The stay of the French in the island was too short to have any effect on the population. A social barrier has been built up between the British and the people of the land, and the general impression gained is that, though there are a certain number of mixed marriages, there cannot, even after three generations of a large, if floating, British element in Valletta, be more than a very thin British strain in the population.

We have shown, in dealing with the history of the island, how extremely difficult it is to account for the wholesale immigration of an Armenoid-like population at any period. We have also shown how, in spite of the continual immigration of people of the Mediterranean stock, the Maltese type (*i.e.* Malta second race, displaying Armenoid characters) appears to have persisted for a long period. It would seem, therefore, a point worthy of further consideration, whether the development of the Maltese along the lines they appear to have followed may not be due to certain definite geographical factors of whose influence we are as yet unaware. It is possible that if we had at our disposal a long unbroken series, instead of larger or smaller series from Neolithic, Mediæval, and modern ossuaries, we should not find such striking contrasts as we do at present. Anthropological data from various parts of the Mediterranean show that there is very often a significant difference between two villages in different valleys of the same mountain range. It is possible that even the few generations which have elapsed between the building of Hal Tarxien and 1921 may be the equivalent, in time, of such a journey in space, and certain big changes may have taken place owing to changing geographical conditions. There can be little doubt that the climate of Malta has changed very much, not only since the first terrace was cut in the Weid Dalam, but even since the formation of the second terrace. We have also suggested that the evidence from Professor Zammit's excavations at Hal Tarxien hints at a change in climate since Neolithic times. The change in the structure of the population may be due, therefore, partly to geographical as well as to historical causes.

Whether or no the development of the Maltese sub-race is due to particular geographical conditions, there can be little doubt that, in Malta at least, the strain is biologically remarkably successful and extremely fertile. In spite of the high infant mortality which has existed in the past, they have continued to increase, and the modern developments of hygiene and the care of infants are likely to make the increase still more rapid. If the overcrowding continues, in a comparatively short time we shall be faced with conditions in the island which would appear to be, biologically speaking, unsatisfactory. Sanitary conditions can be improved, food can be imported, but excessive overcrowding may bring its own remedy, either in disease or in a diminished fertility. The present fertility is quite possibly due to some underlying climatic condition. In spite of lack of water, Malta has long been extremely fertile botanically, and was famed for this in classical times. The Maltese goats, by far the most abundant large mammal of the island apart from

4: Cassar P-4, 5 (no date) 1964 EZ6 Malta EZ6

body include faces, eyes, ears, upper limbs, hands, trunks, female breasts, hearts, thighs, legs, and feet (Plate 1, Fig. 1). Although they show no deformities and no pathology they indicate the part affected by illness and healed by divine intercession. Thus 'legs were offered for paralysis, congenital anomalies and chronic ulcers in the lower limbs; 'arms' and 'hands' for fractures and threatened loss of fingers by injury or gangrene; 'ears' for deafness and otitis; and 'eyes' for a variety of ocular diseases. Sometimes, however, the association of illness and anatomical part is not so specific; thus 'trunks' were offered for such varied conditions as throat affections, hernias, and mental disorder; 'faces' for enlarged glands in the neck; and pairs of female 'breasts' for deficiency of milk in a lactating mother as well as disease of these organs.

They were made of wax or of raised work in gold and silver foil. Those met with at present are the silver ones, the others having disappeared from the churches though they were still being offered at the end of the last century if not later. There are records of wax effigies of arms, legs, eyes, and babies and also of gold ones having been deposited at that period at Ta Pinu Church at Gharb in Gozo. A pair of gold legs cost £17 (*Id-devot ta Maria* 1890; Kerr 1893). Wax figures also existed until some thirty years ago in the small church of Tal Mirakli at Lija (Tanti 1962). These objects were manufactured in Malta but some of them were imported from Sicily and North Africa. The gold and silver foil was hammered into the desired shape over dies of bronze by a silversmith (Plate 1, Fig. 3). They vary in size from 6 by 2½ inches to 1 by 3½ inches. Some of them bear hall-marks which help to date them and identify the source of manufacture. The earliest met so far by the writer is a stylized silver model (in the writer's collection) of a pair of female breasts impressed with the hall-marks of the Grand Master of the Order of St. John of Jerusalem, Em. de Rohan who ruled over the Maltese Islands from 1775 to 1797.

The deposition of anatomical 'ex-votos' in Maltese churches ceased in 1935. The ecclesiastical council held in that year in Malta under the presidency of Cardinal H. Lepicier disallowed the exhibition of 'votive offerings showing parts of the human body except those in the shape of a heart', (*Concilium*, 1935, p. 60), so that the present-day visitor will hardly see anything else except 'hearts' hanging by the statues of the saints to whom they were offered by grateful devotees. The more 'profane' models have been melted and converted into sacred utensils for the church service.

Very occasionally instead of an anatomical representation, we come across a silver tablet commemorating deliverance from illness. Here is a specimen inscribed in Latin:

P. Trapani cum suis / A. MDCCCLXXXVII / Ab Asiana Lue /
Incolumos (*Id-devot ta Maria*, 1888).

that is P. Trapani and his family spared from the Asiatic Disease of the year 1887.

(The Asiatic Disease was cholera of which Malta had seven outbreaks during the last century. The 1887 epidemic lasted three and a half months and had a mortality of over 50 per cent.)

Quite often the making of a vow was accompanied by the recitation of prayers and by touching the diseased part with some object associated with the healing saint. These actions include the smearing of the part, in the form of a cross, with oil obtained from the sanctuary lamp; touching the part with a sacred image or medal; sipping water in which rose-petals from the altar, dedicated to the saint or Virgin, had been immersed;